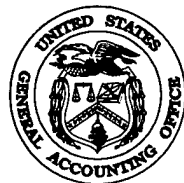


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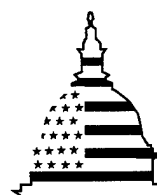
FORCE STRUCTURE

Air Force Expeditionary Concept Offers Benefits but Effects Should Be Assessed



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Abbreviations

AEF	Aerospace Expeditionary Force
EAF	Expeditionary Aerospace Force



United States General Accounting Office
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In response to today's operational environment, which requires continuous deployments to small-scale contingencies, the Air Force has reevaluated how it deploys forces. According to Air Force officials, more frequent overseas deployments have increased the strain on Air Force servicemembers raising concerns about retention and readiness. Some U.S.-based units were tasked many times to support contingencies while others were tasked infrequently. Additionally, servicemembers have not been receiving sufficient advance notice to plan for overseas deployments, and the Air Force has asserted that frequent deployments have led to retention problems. To mitigate the effects of day-to-day requirements on its personnel, the Air Force decided to revamp the way it manages contingency deployments, instituting a more predictable deployment rotation that includes more active and reserve forces.

In August 1998, the Air Force announced the adoption of the Expeditionary Aerospace Force Concept as a way to help manage its commitments to theater commanders and reduce the constant deployment burden on its people. Implemented on October 1, 1999, the Concept designates most of the Air Force's combat, mobility, and support forces¹ to 10 similar Aerospace Expeditionary Force groups. Each force group, consisting of active, Air National Guard and Air Reserve forces, is scheduled to deploy once every 15 months for 90 days. Rotating 2 at a time, forces from these 10 groups are scheduled to cover ongoing and unforeseen contingency operations worldwide. Currently, the five contingency operations to be covered by these forces include: (1) Northern Watch in Iraq, (2) Southern Watch in Iraq, (3) Operation Deliberate Force in Bosnia, (4) counter-drug operations in South America and the Caribbean, and (5) North Sea operations in Iceland. Because each pair of forces is greater than these force requirements, not all forces scheduled for deployment will actually deploy. Further, the Air National Guard and Air Reserve participation depends on volunteer forces.

¹Combat forces include fighters and bombers; mobility forces include refueling and intratheater airlift aircraft; support forces include personnel providing base security, fire fighting, medical, administrative, and other services.

Although the Concept is still evolving, its objectives are to: (1) maximize the use of the Air Force's Total Force, (2) make deployments predictable, (3) better balance deployment taskings to provide relief to heavily tasked units, and (4) limit contingency deployments to 90 days every 15 months. In the near term, the Concept is not designed to change the way forces deploy to major wars. In the event of a single major war, however, the Air Force intends, unless otherwise directed, to continue supporting the five contingencies while fighting the war. In the two nearly simultaneous major war scenario, the Expeditionary Concept is not relevant because all Air Force combat squadrons would deploy to the two wars and, therefore, combat forces would have to be withdrawn from contingencies.

This report responds to your interest in the Air Force's efforts to implement the Expeditionary Aerospace Force Concept and the benefits and challenges the Concept provides. Specifically, we assessed: (1) the extent to which the Expeditionary Aerospace Force Concept will spread the burden of deployments over a larger part of the Air Force's combat and mobility forces,² (2) what challenges the reserves face in meeting their expected role under the Concept, and (3) whether the Air Force could continue rotating forces to ongoing contingency operations, as planned under the Concept, while simultaneously engaging in a single major war. We conducted detailed analyses of force structure data and defense plans in answering the first and third objectives. For the first objective, we compared historical deployments to those projected under the Expeditionary Concept for specific types of units. For the third objective, we first obtained a list of the fighter squadrons that would be needed for a single major war. We then examined whether the Air Force could continue rotating forces to the five contingencies as planned with the remaining squadrons. (For details of our scope and methodology, see app. I.) Ours were unique analyses not previously conducted by the Air Force. The Expeditionary Concept has only been in place for 9 months and the Air Force has not yet transitioned to evaluating the Concept's effects.

Throughout this report we refer to the Expeditionary Aerospace Force Concept as the Expeditionary Concept (EAF) and the 10 groups of combat, mobility, and support forces as Aerospace Expeditionary Forces (AEF).

²We did not examine the relief that the concept might provide to combat support forces.

Results in Brief

The Expeditionary Concept is likely to achieve its objective of spreading the deployment burden over a larger part of the Air Force's combat forces, but mobility air forces are not likely to be affected. Generally, active combat units based in the United States will experience a considerable drop in contingency deployments. On the other hand, similar active combat units in overseas commands and in reserve components could see significant increases in contingency deployments. Both reserve and active mobility air forces are likely to continue their high deployment level because, in addition to participating in contingencies under the Concept, they are constantly assigned to other tasks, such as transporting people and equipment for all the services and performing humanitarian operations. Our assessment was based on our own data analysis because, to date, the Air Force has not systemically monitored Expeditionary Concept results. Furthermore, the lack of specific measurable goals in some areas could hamper future assessment efforts.

The predictability of deployments that the Concept provides the reserves³ is an important benefit that should help reserve forces better prepare for their deployments and employers better plan for their employees' absences. However, the reserves face two challenges that require long-term solutions. The first is to provide sufficient personnel in certain specialty areas such as cargo handlers, where the need for these skills is high but the availability of qualified personnel is low. This could be accomplished by reallocating existing personnel. The second challenge is to better match the reserves' aircraft capabilities with their increased role in contingency operations. Reserve officials consider upgraded capabilities essential if they are to be used to meet high-demand contingency requirements, such as the delivery of precision-guided munitions. The reserves are closely monitoring some aspects of their participation in the Concept, such as the number of positions they agree to fill in certain specialties. However, they do not systemically collect and monitor other data that is critical to meeting their commitments under the Concept, such as the extent to which reservists are willing to volunteer for overseas deployments.

The Air Force would experience a significant disruption in its ability to rotate forces to contingency operations under the Concept if it were called on to simultaneously support a single major war. If a major war arises, forces are expected to deploy as specified in the theater commander's plan,

³We use the term reserves to refer collectively to the Air National Guard and the Air Reserve.

not according to their alignment with the 10 Aerospace Expeditionary Force groups. Forces required for a major war would be drawn from all 10 force groups, with some deploying as much as 50 percent of their combat forces and often depleting high-demand capabilities. After deploying forces to a single major war, no Aerospace Expeditionary Force pair would have sufficient assets to provide all the required capabilities to maintain ongoing contingency operations. Even pooling assets from different Aerospace Expeditionary Force groups could cause some units in certain mission areas to deploy for periods as long as 180 days. Furthermore, the time required to reconstitute the forces deployed to the war and to ongoing contingencies in order to re-establish contingency rotations would depend on the scenario's duration and the size of the forces deployed.

We are recommending that the Air Force develop specific quantifiable goals based on the Concept's broad objectives and measure progress toward these goals, particularly for such aspects as deployment predictability and for factors that affect reserve participation, such as rates of volunteerism. DOD agreed that a systematic, quantifiable approach to determining Expeditionary Concept efficacy was critical, but said that existing Air Force metrics, with refinements based on real experience, would achieve this end. We retained our recommendation because specific objectives have not been set for this initiative and existing metrics do not provide a means to measure progress and results. We have also included a matter for congressional consideration that would require the Secretary of Defense to direct the Secretary of the Air Force to establish specific, quantifiable goals and performance measures based on the Concept's broad objectives, and to use this management framework to provide the Congress with annual updates on the Concept's status and results.

Background

During the Cold War, the Air Force, planning to contain one enemy, operated primarily out of fixed bases in the United States, Europe, and the Pacific. Since the end of the Cold War, this environment has changed. Although the Air Force must still be prepared to fight and win two major wars, it has been continuously involved in contingency operations around the world. Today, according to the Air Force, it operates with two-thirds fewer permanent overseas bases, one-third fewer people, and a 400-percent increase in the number deployments than it did during the Cold War. More frequent deployments throughout the world, primarily from the United States to often temporary, sometimes austere bases, are taking their toll on the force, according to Air Force officials. Signs of stress officials have cited include:

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- a decline in recruiting, retention, and morale;
 - less stability and predictability of deployments for personnel and their families;
 - increased deployment burden on active-duty forces, due to short-notice taskings;
 - increased reliance on reserve forces to fill day-to-day taskings;
 - increased work hours for some at home stations to compensate for those who are deployed;
 - uneven taskings across the force—some units have been tasked many times for contingency operations, while others have been tasked infrequently; and
 - a decline in force readiness indicators.

To ease these and other stresses, the Air Force's senior leadership decided that the service had to move from a Cold War deployment structure to an expeditionary approach. On August 4, 1998, the Secretary of the Air Force announced the adoption of the Expeditionary Aerospace Force Concept for deploying forces to crises and ongoing contingency operations. The Air Force based the Concept on earlier experience in deploying ad-hoc integrated forces of fighters and bombers to meet theater commanders' contingency requirements. Under the Concept, combat, mobility, and support forces (active, Air National Guard and Air Reserves) are aligned into 10 AEFs and are made available in pairs to deploy as needed to ongoing contingencies on a fixed schedule. Based on historical contingency deployments, the forces in an AEF pair are designed to support at least five ongoing contingencies: (1) Northern Watch in Iraq, (2) Southern Watch in Iraq, (3) Operation Deliberate Force in Bosnia, (4) counter-drug operations in South America and the Caribbean, and (5) North Sea operations in Iceland.

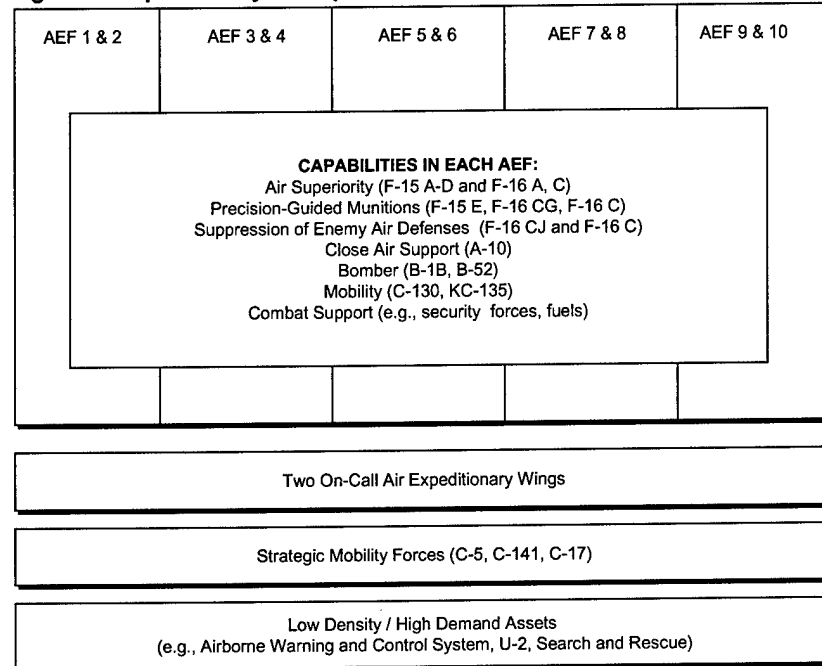
Aerospace Expeditionary Force Structure. Most of the Air Force's Total Force (active and reserve forces) is aligned into 10 AEFs. Each AEF is comprised of existing units that are geographically separate but aligned organizationally as a pool of forces from which the Air Force can draw to meet contingency operation needs. The Air Force's traditional command and organizational structures do not change under the Expeditionary Concept. For example, the Air Force did not create an AEF commander, and squadrons still continue to report to wings that report to their higher commands. Active forces are either deployed or on-call for the entire 90 days. The reserves have agreed to provide varying levels of aircraft and aircrews and 10 percent of the total combat support forces needed for each 15-month cycle. The reserves rely on volunteers to serve a minimum of

15 days to meet their commitments. Therefore, six reservists may be needed to cover each 90-day AEF position if each reservist serves only the minimum 15 days.

Each AEF has roughly equivalent capabilities composed of fighter and bomb squadrons, airlift and refueling forces, and combat support from active and reserve forces, although specific assets are not identical.⁴ For example, according to an Air Force official, precision bombing may be provided by F-15Es in one AEF and by F-16CGs in another AEF. In addition to the two AEFs, one of two, on-call, rapid response Air Expeditionary Wings (AEW) is also used to cover each 90-day period. These wings provide theater commanders with rapidly deployable crisis response that may not be available from non-deployed AEF forces. Each AEF pair is also supported by strategic mobility and Low Density/High Demand⁵ enabler forces such as strategic lift and electronic surveillance aircraft. While these enabler forces are not aligned with specific AEFs, they provide critical capabilities that enable the AEF forces to deploy and operate. Figure 1 illustrates how the Air Force aligned a broad range of capabilities in each AEF.

⁴The Air Force has identified nearly \$300 million in Expeditionary Concept implementation costs that are included in the fiscal year 2001-05 Defense budget. These funds will generally pay for enhancing AEF capabilities.

⁵Low Density/High Demand forces are relatively few in number and heavily used.

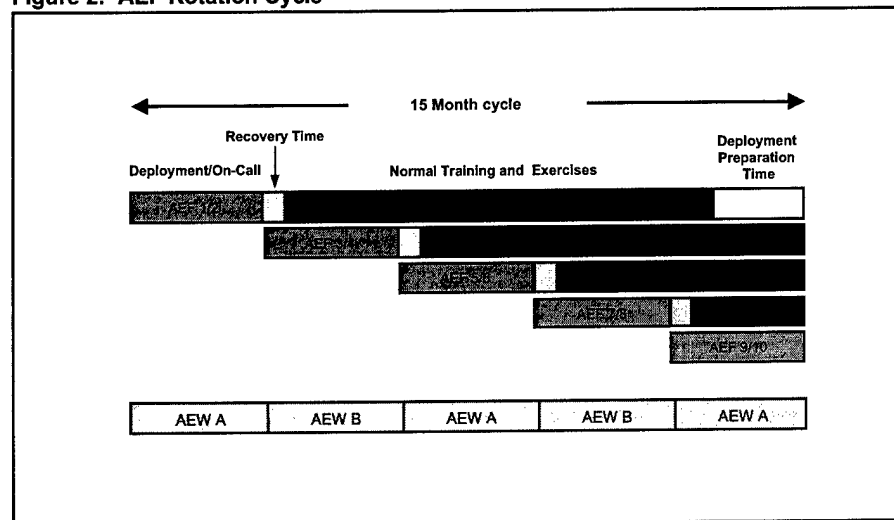
Figure 1: Expeditionary Aerospace Force Structure

Source: U.S. Air Force.

Aerospace Expeditionary Force Cycle. To meet the demands of ongoing contingency operations, pairs of AEFs cover 90-day periods during which their aligned units either deploy or remain at home on-call. During the 90-day deployment period, forces from one AEF support Southern Watch and counter-drug operations, while forces from the other AEF support Northern Watch, Bosnia, and Iceland operations. Residual on-call forces are prepared to respond in case of increased demand for forces to ongoing contingency operations or to minor unanticipated crises. After 90 days, forces from an AEF pair, even those that have not been deployed, are replaced by those from the next scheduled AEF pair and are unavailable for contingency deployments for 12 months. Limiting contingency deployments to 90 days allows servicemembers to participate in training and exercises away from their home base and still meet the Air Force's deployment ceiling goal of no more than 120 days away from home station each year. Prior to each 90-day deployment period, each AEF pair trains and prepares for its specific deployment operation for about 2 months. Once the AEFs return from an overseas contingency operation, it is allowed roughly 2 weeks of recovery time. Then, for the next 10 months,

AEF forces conduct normal training and operations (such as proficiency training, equipment maintenance, and unit training exercises) with their wings. Figure 2 below illustrates the AEF rotation cycle.

Figure 2: AEF Rotation Cycle



Source: U.S. Air Force.

The Air Force established the AEF Center at Langley Air Force Base in Hampton, Virginia, to coordinate the AEFs' deployments and deployment preparation. The Center coordinates theater commanders' contingency requirements with AEFs rotating to operations. The Center also collects and makes available lessons learned and readiness data. Both the Air National Guard and the Air Reserve have established AEF centers to coordinate reserve AEF commitments and deployments to contingencies.

Expeditionary Aerospace Force Provides Deployment Relief but Not to All Forces

Under the Expeditionary Concept, some active combat units will deploy less, while some reserve units and active units assigned to overseas commands will likely deploy more. This is the "leveling effect" that the Air Force fully intended to achieve with the Concept. However, heavily tasked mobility forces, both active and reserve, are likely to see little deployment relief from the Concept, partly for reasons beyond the Air Force's control. This is our assessment after comparing deployments before and after implementation of the Concept. In the future, we believe the Air Force

should systematically monitor the results of the Concept and determine if adjustments are needed in the program's implementation.

To estimate the deployment relief provided by the Expeditionary Concept, we compared: (1) the actual amount of time active and reserve combat squadrons deployed to the five ongoing contingencies during fiscal years 1998 and 1999 (before the Expeditionary Concept implementation) with, (2) the projected time squadrons would spend deployed to the same five contingencies over fiscal years 2000 and 2001 under the Expeditionary Concept.⁶ Our objective was to test the extent to which the Concept might provide relief from frequent and continuous deployments. We did not analyze the deployment frequency of enabler forces such as strategic mobility and Low Density/High Demand forces because these forces are not aligned in the 10 AEFs.

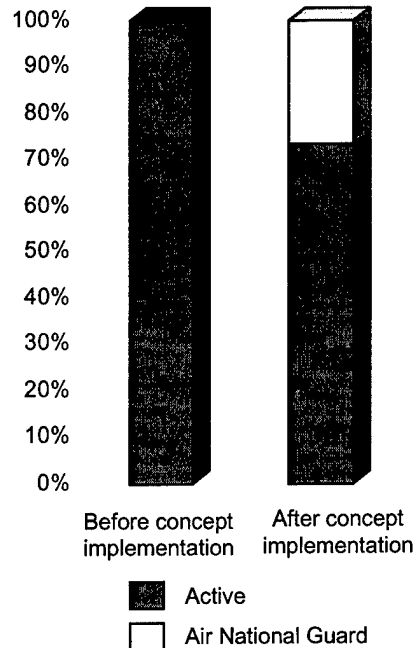
Some Active Fighter Forces Benefit

Our analysis showed that active fighter squadrons supported 75 percent of the total days deployed to contingencies during the 2 years preceding implementation of the Expeditionary Concept, making them among the most heavily tasked units. After the first 2 years of the Concept's implementation, our analysis of fighter forces⁷ showed that some but not all fighter forces will obtain deployment relief using the Expeditionary Concept. For example, the precision-guided munitions mission area for F-16CGs illustrates the leveling effect that reserve deployments would have under the Expeditionary Concept. During the 2 years preceding the Expeditionary Concept, active precision-guided munitions squadrons (F-16CGs) were used to meet all of the contingencies' precision-guided munitions requirements. However, after the Concept's implementation, active squadrons are expected to meet about 70 percent of this requirement, and the Air Guard squadrons will meet the remaining 30 percent. Figure 3 illustrates the impact of using Air Guard squadrons to meet precision-guided munitions requirements.

⁶Our deployment projections are based on units' AEF alignment and vary by active, Guard and Reserve units and by aircraft type. See appendix I for our complete methodology.

⁷Our analysis included F-15s, F-16s, and A-10s.

Figure 3: Historical and Projected Deployments for Active and Air Guard F-16 Precision-Guided Munitions Squadrons



Note: The Air Guard will perform the precision-guided munition mission with F-16CG and modified F-16C aircraft

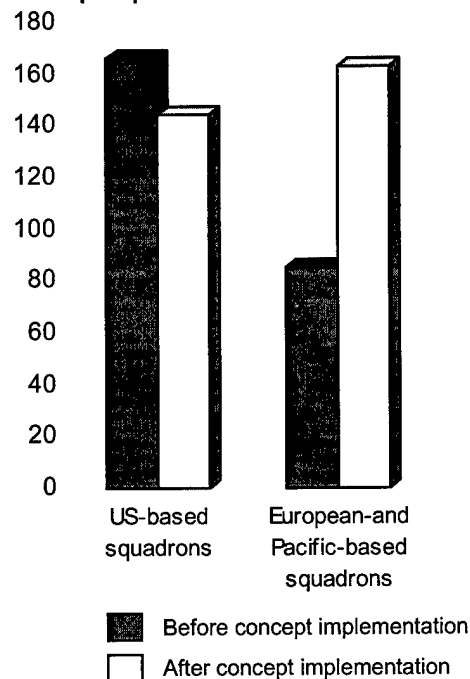
Source: GAO analysis of Air Force data.

In contrast, there will be little change in contingency deployments among A-10 units performing the close air support mission. Active and Reserve A-10 units will deploy slightly more days than they did before, while Guard units will deploy about the same number of days. One reason the A-10 deployments will not change much may be that, due to high demand for A-10 capabilities, reserve forces have already been deploying regularly, and active and reserve forces have been already sharing the A-10 deployment burden.

Prior to the Expeditionary Concept, active units in overseas commands were infrequently deployed to support ongoing contingencies. Under the Concept, however, overseas units will ease the deployment burden on U.S.-based units by regularly deploying to ongoing contingencies. For example, in the past, the Air Force regularly deployed the six U.S.-based F-15C/D squadrons to contingencies. However, under the Concept, the Air

Force aligned the five European- and Pacific-based F-15C/D squadrons in AEFs, and these units are scheduled for regular contingency deployments. Over the past 2 years, the six U.S.-based squadrons made 21 contingency deployments totaling 994 days (an average of 166 deployed days per squadron). The five overseas-based squadrons deployed to contingencies only 7 times for a total of 424 days (an average of 85 days per squadron). After implementation of the Concept, the Air Force plans to increase the European- and Pacific-based squadrons' deployments to contingencies. In the first 2 years after implementation of the Concept, the average deployed days for U.S.-based squadrons will decrease to 144 days per squadron, and the average deployed days for the European- and Pacific-based squadrons will increase to 163 per squadron (see fig. 4).

Figure 4: Active F-15C/Ds Average Days Deployed Before and After Expeditionary Concept Implementation



Source: GAO analysis of Air Force data.

Little Deployment Relief Expected for Mobility Forces

Air Force officials do not expect the Expeditionary Concept to provide deployment relief for mobility forces because these forces are heavily tasked in addition to the five ongoing contingencies. Active and reserve mobility forces also perform missions for the other services such as transporting equipment and people, and performing humanitarian operations. The reserves' mobility forces were already sharing the deployment burden before the Air Force implemented the Expeditionary Concept. As a result, Air Force officials do not expect the reserves to provide deployment relief to active mobility forces as they are expected to do for the active combat forces. Based on our projection of the Concept's fiscal year 2000-01 contingency deployments, 49 percent of cargo C-130 deployments will be met by active forces and 51 percent by reserve forces. Sixty-eight percent of the tanker KC-135 deployments will be met by active forces and 32 percent by reserve forces. As for the Concept's effect on predictability of mobility forces' deployments, Air Force officials said that mobility force deployments are usually scheduled in advance and that the Expeditionary Concept is expected to further improve deployment predictability.

Air Force Lacks Systematic Assessment of Expeditionary Concept Results

While our analysis demonstrates that some of the anticipated benefits of the Expeditionary Concept are being achieved, the Air Force has yet to develop its own evaluation strategy that would provide senior leadership with the analysis it needs to guide the further development of the Concept. To date, the Air Force has focused its attention on implementation of the Expeditionary Concept, which is still in its first 15-month cycle. Although the Air Force has established specific goals relating to deployment frequency and duration, it has not systematically assessed whether the Concept is achieving these goals. Further, the Air Force expects to achieve other important benefits from the Expeditionary Concept, but has yet to establish specific quantifiable goals for those benefits. For example, the Air Force has established two quantifiable goals regarding deployment duration and frequency. One goal is that no one in the Air Force should have to deploy more than 120 days per year and a second goal is that overseas contingency deployments under the Concept should not exceed 90 days every 15 months. The Concept is also structured so that the Air Force can, based on unit alignment, project future unit deployment periods for servicemembers. However, the Air Force has not set specific measurable goals for the level of predictability desired for individual servicemembers, such as 180 days advance notice before actual deployment. Further, the Air Force has not monitored deployment duration or frequency to determine whether the Concept is providing deployment

relief. This information is important because it enables the Air Force to assess whether the Concept is operating as intended, particularly for specific aircraft mission areas (such as precision-guided munitions) and for support specialty areas (like security forces or communications). It also provides Air Force leadership the data it needs to assess whether the Concept is on track or whether adjustments are needed in implementing the Concept.

Deploying Reservists Under the Expeditionary Concept Presents Some Operational Challenges

Air Force leadership recognizes that the Guard and Reserves are crucial to the success of the Expeditionary Concept. Guard and Reserve forces are expected to pick up more of the workload in overseas contingencies, and this will change how reservists have been traditionally used. Reservists are an integral part of each AEF and are expected to deploy with the active forces in support of the five ongoing contingencies. Despite these changes, Guard and Reserve officials believe the Expeditionary Concept will prove beneficial to reserve forces and the Air Force as a whole. But they note that there are two operational challenges that could affect Reserve participation in the Expeditionary Concept, one dealing with existing personnel allocations, and another dealing with the capabilities of Reserve aircraft. Even though the reserves are a significant factor in the future success of the Concept, the Air Force is not systematically monitoring the impact of reserve force participation on reserve forces.

Expeditionary Concept Changes How the Guard and Reserves Will Be Used

Under the Expeditionary Concept, Guard and Reserve forces are used much differently than in the past. According to Air Force officials, some Guard and Reserve combat forces have historically deployed in support of contingency operations, but generally only during specific periods of the year, not throughout the entire year. Guard and Reserve support forces, on the other hand, have rarely been deployed to overseas operations and have been used instead to replace deployed active forces at U.S. bases. Under the Expeditionary Concept, both combat and support reserve forces will deploy to overseas contingency operations on a regular basis throughout the year. According to both Guard and Reserve officials, this is a significant change for both reservists and theater commanders, particularly for reserve support forces, since the Expeditionary Concept requires them to ramp up from virtually zero deployments to meeting as much as 10 percent of theater commander requirements.

Guard and Reserves Are Integral to Each AEF

Both the Guard and Reserve have combat, mobility, and combat support forces aligned with every AEF and deploy regularly with active Air Force personnel. In fact, with Guard and Reserve forces accounting for 60 percent of the combat and mobility squadrons aligned in the AEFs, they are key to easing the deployment burden on active forces. However, due to their part-time status, the reserves' participation in AEFs is different than that of their active counterparts. Based on a resourcing conference held before the beginning of each Expeditionary Force cycle, the Guard and Reserve review the theater commanders' requirements and determine the number of aircraft they will commit to the rotation and the number of qualified reservists available to fill the commanders' requirements. According to Air Guard and Air Reserve officials, factors considered in these determinations include training status, certification status (if required), prior deployments, and volunteer status. The size of each commitment depends largely on the number and size of the Guard and Reserve units aligned with the AEFs. For example, one AEF has nine Guard fighter squadrons scheduled to provide all the air superiority⁸ capability required by the theater commander. In contrast, another AEF has only three Guard fighter squadrons that meet only a portion of air superiority requirements. Guard and Reserve forces that are not deployed are not placed on-call like their active counterparts.

Guard and Reserve officials have set a target of providing 10 percent of the expeditionary combat support forces required by the Air Force for overseas contingency operations.⁹ This support comes primarily from support units associated with the aligned combat squadrons. For example, if the 192nd Fighter Wing in Richmond, Virginia, is to deploy aircraft and crews to an operation during an AEF rotation, support from this unit, such as security forces, firefighters, and civil engineers, would also likely deploy to the same operation during that rotation. Deploying combat support in this manner, according to reserve officials, provides unit efficiency because deployment transportation is coordinated as a unit and many aspects of the operations are conducted as a unit.

⁸Air superiority is the degree of dominance in the air battle of one force over another.

⁹Reserve participation was about 6 percent of the total combat support requirement for AEFs 3 and 4, which were deployed between December 1999 and February 2000. This was only the second deployment under the Expeditionary Aerospace Force Concept.

The Guard and Reserves will rely totally on volunteers to deploy to contingencies. According to reserve officials, the reserves can activate volunteering reservists under 10 U.S.C. 12301(d), which contains no express limit on the resulting active duty tour. Reservists, under the Expeditionary Concept, are limited to volunteer for no less than 15 days in theater plus the necessary travel time to and from the overseas operation. The Guard and Reserve officials have estimated that 70 percent and 100 percent, of their servicemembers, respectively, will volunteer for these rotations. Although they believe reservists are free to volunteer for more than 15 days (in 15-day increments), the Air Force is using 15 days in theater as the common denominator to determine the number of reservists needed to meet their commitments. This means that the Reserves must identify as many as six volunteers for every 90-day position that they commit to fill. In addition, to ensure that reserves' participation in contingencies does not preclude their availability for annual training, the Guard has set a ceiling of one deployment per reservist every 30 months (or every other cycle) rather than once every 15 months. The Air Reserve set the ceiling a bit higher, at one deployment every 45 months (or once every third cycle). While this ensures that reservists are not continuously deploying overseas to the detriment of annual training, these ceilings make it even more challenging for the reserves to commit substantial forces to AEF rotations because it reduces the number of personnel available in each AEF.

Positive Impact on Reserve Forces Expected From Expeditionary Force Concept

Guard and Reserve officials believe the Expeditionary Concept should have a positive effect on the reserve forces. For example, they consider predictability of deployment an important benefit since reservists will know when and where they will be deploying overseas at least a year or more in advance.¹⁰ In addition to improving reservists' quality of life, this predictability should give their employers more lead-time to fill in for the reservist or rearrange schedules. These officials also noted that because reservists will deploy more frequently to support real world crises, employers should derive a sense of national pride from their employees' deployments. The Expeditionary Concept should also enhance the role of the Guard and Reserves in the Air Force's Total Force. Prior to Concept implementation, the reserves were often used to fill in for deployed active

¹⁰To date, however, deployment predictability has been weakened, according to Air Reserve officials, because some reservists scheduled to deploy have been disqualified by special training requirements.

forces, particularly at U.S. bases, and were not always viewed as front-line forces, according to reserve officials. The officials believe that as Reserve forces deploy regularly overseas to support ongoing contingency operations, they will be able to demonstrate that they can play a vital role in these operations.

Expeditionary Force Participation Will Pose Certain Operational Challenges

Reserve officials mentioned that there are operational challenges that are likely to arise in their efforts to maintain the reserves' active participation in the Expeditionary Concept. One of these is being able to provide high-demand personnel such as cargo handlers, fuel specialists, and security personnel. According to reserve officials, the reserves are sized and structured to meet the demands of a major war, but not continuous deployments to contingencies. Thus, some specialty areas are stressed by contingency demands because of the lack of personnel depth. Additionally, the volunteerism rate can affect the number of reservists available to meet participation commitments in these specialties. Finally, Guard and Reserve training is often designed to meet basic requirements. However, if theater commander's requirements exceed this basic training level, they further limit the availability of reservists. For example, according to Air Reserve officials, telecommunication specialists in the Air Reserves may have the basic skills necessary to deploy but not the unique job training that commanders may require, such as operating a foreign telephone system. According to reserve officials, shortages in several specific specialty areas could occur during the first 30 months of AEF rotations. For example, the Guard projects that it will experience as much as a 40-percent shortfall in fuel specialists during this 30-month period. This could require the Guard to deploy reservists more than once every 30 months. For other specialty areas such as security forces, cargo handlers, and general services personnel such as cooks, officials project that nearly 100 percent of available forces may need to volunteer if the reserves are to participate at desired levels.

Reserve officials indicated that they do not want this challenge to stand in the way of their participation in AEF rotations. Instead, they would prefer to increase the number of trained personnel, improve volunteerism, and/or obtain an increase in the number of authorized positions in certain shortage areas. The Guard initiated a study in March 1999 to identify and evaluate specialty areas stressed by contingency operations and areas with ample personnel to meet their commitments. This effort, which is expected to become a recurring evaluation, will be used by the Guard to develop the 2002-07 spending plan and may result in reallocating positions. While this

may address the need to adjust authorizations in some areas, it may not address the shortage of people to fill these authorizations or the lack of volunteers. According to Air Reserve officials, they are evaluating each specialty area prior to making commitments for participating in future rotations and will identify those areas where they might have to limit their participation, as well as those areas where increased participation is possible. They also stated that the Air Reserve is working with theater commands to identify and better define, wherever possible, overly stringent requirements that might preclude reserve participation.

Another challenge, according to reserve officials, is to better match the reserves' aircraft capabilities with their increased role in contingency operations. For example, theater commanders often request the capability to launch precision-guided munitions, yet only 25 percent of the Guard and Reserve F-16 squadrons are currently capable of performing this mission. While Guard officials expect their aircraft to be upgraded over time, they believe the current lack of capability limits the extent that reserve aircraft and aircrews can participate in AEF deployments. Additionally, they believe that lack of capability to perform the high-demand suppression of enemy air defenses mission also limits the utility of the Guard's combat units. For example, three units of Guard F-16s were originally aligned with AEF 4, and three with AEF 10. However, because these Guard pilots were not trained, and their aircraft were not equipped to perform the suppression of enemy air defenses mission, they were realigned with other AEFs and replaced by active aircraft and aircrews that are better equipped.

Reserve officials believe that other operational challenges are more manageable. These include ensuring adequate and reliable transportation for rotating forces, managing annual training so that overseas deployments do not adversely affect readiness, and monitoring the effect of more frequent deployments on retention and recruiting.

Impact of Expeditionary Force Participation on Reserves Is Not Being Systematically Monitored

While the Guard and Reserves monitor some aspects of their participation in the Expeditionary Concept, they do not have a comprehensive approach for systematically gathering data to measure the Concept's effect on them. For example, the reserves have initiated individual efforts to monitor specific problems, such as shortages in specific specialty areas, and level of individual reservist's deployments. Although these individual efforts provide increased visibility in specific areas, reserve officials told us that they were not aware of any systematic effort to collect and monitor data critical to evaluating reserves' AEF participation. For example, according

to reserve officials, neither Guard nor Reserve is systematically tracking volunteerism rates. Nevertheless, without this data, they have estimated that 70 percent of Guard personnel and 100 percent of Air Reserve personnel may volunteer for overseas duty. Air Guard and Air Reserve officials believe it is important for their leadership to know the actual level of volunteerism being achieved in order to assess whether additional efforts are needed to encourage volunteerism or whether they need to adjust their commitments. Likewise, data on recruitment and retention trends and AEF deployments by aircraft type and support specialty are important for assessing the impact of the Expeditionary Concept on reserve forces. For example, the Air Force could monitor whether retention issues observed in the active force, were simply being transferred to the reserves. Air Guard and Air Reserve officials agreed that there are a number of factors critical to determining the extent to which the reserves will be able to participate in AEF rotations to contingencies under the Concept.

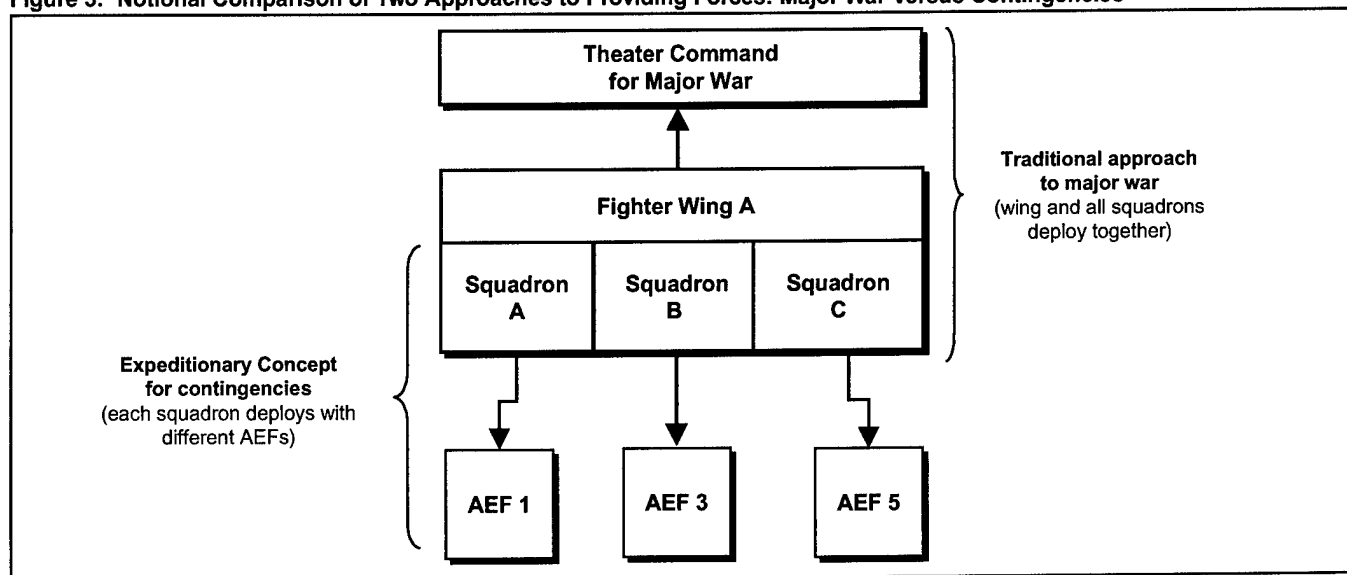
A Major War Would Seriously Disrupt Expeditionary Force Contingency Rotations

The Air Force has stated that in the near term, the Expeditionary Concept will not be used to deploy forces to a major war.¹¹ Instead, the Air Force would revert to its traditional approach to providing forces for a major war. This traditional approach involves designating all the squadrons in a wing to a single theater commander for use in a major war. The Expeditionary Concept, in contrast, aligns each squadron in a wing¹² to a different AEF. Thus, the forces each theater commander relies on to conduct a major war are spread throughout all 10 AEFs. Figure 5 illustrates how all squadrons in a wing would deploy to the same theater in a major war but for contingencies, each squadron is aligned to a different AEF.

¹¹Air Force officials stated that this situation would exist until about 2007, when the fighter upgrades are scheduled to be completed.

¹²Active Air Force fighter wings generally contain two or three squadrons.

Figure 5: Notional Comparison of Two Approaches to Providing Forces: Major War Versus Contingencies



Source: GAO.

Air Force and U.S. Joint Forces Command¹³ officials agreed that they expect to continue contingency operations while engaging in a single major war unless the National Command Authority decided to reduce contingency requirements or order selective disengagement. For example, Kosovo showed that even though Air Force participation in that contingency approached what might be expected in a major war, ongoing contingencies substantially continued.¹⁴ If a single major war were to occur, U.S. Joint Forces Command officials agreed the first priority would be to deploy forces to the war. Once the war's requirements were met, the second priority would be to continue contingency operations. Given that a single major war would require significant forces from each AEF, we conducted a detailed analysis to determine whether the Air Force could continue AEF rotations to contingencies with the remaining forces.

¹³U.S. Joint Forces Command provides U.S.-based forces to all theater commanders.

¹⁴According to Air Force officials, the service did not disengage from any contingency operations, but did scale back operations in Northern Watch for a short time due to a lack of critical command and control aircraft.

Analysis Shows Significant Impact on AEF Rotations to Contingencies

We analyzed two separate major war scenarios¹⁵ and found that when forces are drawn from the AEFs to support either war, the expeditionary force rotations to ongoing contingencies would be seriously disrupted. For example, seven AEFs would deploy as much as 50 percent of aligned combat forces to one single major war scenario and those remaining forces would be predominately (60 percent) reserves. Additionally 4 of the 10 AEFs would be left without the capability to deliver precision-guided munitions and 5 would have no capability to suppress enemy air defenses.

In addition to the limited remaining capabilities, the rotation schedule would be disrupted. We concluded that no AEF pair could sustain 90-day rotations for the five ongoing contingency operations during a single major war. For example, the remaining forces would be more than ample to meet some current contingency requirements with 90-day rotations (such as providing air superiority). However, the AEFs would not have enough remaining forces to maintain 90-day rotations for other capabilities such as those discussed above. Pooling the remaining forces from all AEFs would enable the Air Force to meet requirements for contingency operations but deployment periods could be as high as 180 days.¹⁶ For example, in another single major war scenario, three of the five AEF pairs only contain one or fewer precision-guided munition squadrons. Air Force officials said that four air superiority Guard squadrons would be upgraded by September 2000 to perform both air superiority and precision-guided munition missions. While these upgrades will help alleviate the shortfall, the Air Force would still not be able to meet all the precision-guided munition contingency requirements with 90-day rotations. Without pooling remaining squadrons, only one of the AEF pairs would meet the requirement for four of these squadrons. Alternatively, to maintain the Concept's goal of limiting deployments to 90 days, current contingency requirements would likely have to be reduced. It is also possible, according to Air Force and U.S. Joint Forces Command officials, that other services or allies might be able to meet some continuing contingency requirements.

¹⁵To analyze two separate major war scenarios, the U.S. Joint Forces Command provided the specific Air Force combat squadrons designated in planning documents to support each scenario.

¹⁶According to U.S. Joint Forces Command and Air Force officials, the actual number of days the remaining AEF forces would be deployed would depend on how long the major war lasts and the time required for force reconstitution.

Reconstitution Will Further Disrupt AEF Rotations

After the single major war ends, forces will need to reconstitute before resuming regular AEF contingency rotations and would involve both those forces serving in the major war as well as those deployed for extended periods to contingencies according to Air Force officials. Reconstitution is the time a squadron needs to return to its pre-deployment condition and includes conducting proficiency training, equipment maintenance, and inventory resupply. The time required for reconstitution depends on the deployment's duration and on how much of the squadron was deployed—the longer the deployment and the more aircraft deployed from a squadron mean a longer reconstitution period. Air Force officials agreed that in order to reconstitute its forces after a major war, the Air Force may have to temporarily reduce its contingency participation below required levels. As mentioned earlier, 60 percent of the forces remaining to continue contingency operations could be reserve forces. Since these reserves would likely have been deployed for an extended period, Air Force officials said they may not volunteer for subsequent AEF contingency rotations.¹⁷ Air Force and U.S. Joint Forces Command officials agreed that reconstitution after a single major war would significantly affect how quickly the Air Force could resume its peacetime AEF contingency rotations.

Air Force Strategy for Continuing Contingencies During a War

To deal with the conditions described by our analysis, Air Force and U.S. Joint Forces Command officials stated they would rely on established crisis action planning¹⁸ to identify the forces to meet ongoing contingency requirements and those of a major war. According to Air Force officials, if units identified for a major war are deployed to an on-going contingency, they could substitute another unit for the major war that would provide the same capability. However, units with unique capabilities would likely be redeployed from contingency operations to the major war. Once the war's requirements were met, officials agreed they would plan to continue contingency operations with remaining forces. Air Force officials explained that while forces would not flow exactly as planned to a major war, the Expeditionary Concept would likely improve crisis action

¹⁷Additionally, once reservists deploy for more than 180 days the Air Force must count them against the service's active end strength. Therefore, even if reservists volunteer, the Air Force may preclude those that have been on extended deployments from deploying again to an ongoing contingency to stay within end strength limits.

¹⁸Crisis action planning is a short-term process that would identify units immediately available for the major war as prescribed in deliberate plans and continuing contingencies.

planning. For example, the Concept gives the Air Force the flexibility to determine in advance which units would be deployed to contingencies and would not be immediately available to a major war. As a result, according to Air Force officials, they could plan well in advance which units might substitute for those deployed and not available for a major war. When the war ends, Air Force officials also stated they would use the AEF unit alignments to plan and implement units' reconstitution, as they did after Operation Allied Force in Kosovo.

Long-term Vision Would Establish Standard AEF Force

Although the Expeditionary Concept was initially established to address contingency operations, the Air Force's long-term vision is to further mature the Concept to the point where AEFs would be used to provide forces to both major wars and contingencies. Once the long-term vision is achieved, Air Force officials believe, providing forces to and recovering from a major war will be easier. Standard, interchangeable AEFs will allow the Air Force to deploy intact AEFs to a war and leave whole AEFs to sustain contingency operations. Officials also believe that if forces were deployed by AEF, reconstitution would be simplified because entire AEFs could complete reconstitution on similar timetables.

To achieve the Expeditionary vision, Air Force officials recognize that a significant cultural change must occur. Transitioning to this future state, according to these officials, means several conditions must be met. Key among these conditions is that the Department of Defense and the theater commanders need to accept standardized AEF forces that contain interchangeable capabilities by completing planned upgrades and reflect this acceptance in defense planning documents, including the Defense Planning Guidance, allocation of forces in the Joint Strategic Capabilities Plan, and the Joint Operations Planning Execution System.¹⁹ The Secretary of Defense, in his April 2000 guidance to the services, acknowledged AEFs and tasked the Secretary of the Air Force to submit a report by December 15, 2000, that includes the Concept's costs and benefits and a description of force capabilities. Although defense guidance acknowledgment is a first step, U.S. Joint Forces Command officials stated that to be accepted by theater commanders, the Air Force needs to

¹⁹The Defense Planning Guidance is the Secretary of Defense's guidance to the military services for developing budgets, which support the National Military Strategy. The Joint Operation Planning Execution System provides military guidance to the armed services for developing and implementing operational plans.

standardize AEF force capabilities and make them truly interchangeable. While the Air Force currently considers capabilities in the AEFs to be similar, all AEFs are not yet truly interchangeable according to an Air Force official. For example, all AEFs have precision-guided munitions capability, but only three currently have stand-off precision-guided munitions capability. Air Force and U.S Joint Forces Command officials believe that with standardized capabilities, the AEFs could become an accepted approach for planning and conducting all operations, including major wars.

The Air Force has planned several capability upgrades that will help make the AEFs more comparable. These upgrades are programmed for active and reserve fighter squadrons between fiscal years 2001 and 2005 and include capabilities such as improved precision-guided munitions. Air Force officials agreed that while these upgrades will enhance AEF capabilities by enabling some aircraft to perform more than one mission, they were planned before the Expeditionary Concept was developed and are not attributable to the Concept's implementation. Air Force officials have stated that since the Concept's implementation, the service has been developing an investment strategy that could modify the timing and sequence of these upgrades,²⁰ obtaining some of them earlier. As the Air Force further defines the capabilities necessary for a standard AEF, officials stated it may identify additional capabilities required to obtain interchangeable AEFs, thus increasing the costs directly attributable to implementing the Concept's long-term vision.

Conclusions

Our analysis indicates that the Expeditionary Concept is likely to provide measurable benefits. However, the Air Force has not sufficiently established quantifiable goals or a systematic approach for collecting data to measure the Concept's results. Without these management tools, the Air Force will not be able to systematically assess the extent to which the Expeditionary Concept is achieving its objectives or obtain the information it needs to make future adjustments to realize the Concept's full potential. For example, the Air Force has not quantified the objective of improving overseas deployment predictability for servicemembers. Neither has it systematically collected data to determine whether it is accomplishing this goal. Although Aerospace Expeditionary Force rotational cycles provide Air Force units known predictability, there are no deployment

²⁰According to an Air Force official, this investment strategy will not be finalized until the Fiscal Year 2002-07 defense plan is released in early 2001.

predictability goals for individual servicemembers. Without quantifiable goals and systematic data collection and analysis, the Air Force cannot readily monitor attributes critical to implementing the Expeditionary Concept. Examples of these attributes include overseas deployment frequency and predictability, the degree that the Total Force is being used to meet theater commanders' needs, and the extent that reservists are volunteering for overseas deployments. More quantifiable goals and a comprehensive analysis of progress toward meeting these goals could provide the Air Force with the management information needed to know whether the Expeditionary Concept is an improvement over past deployment patterns or whether adjustments to the Concept are needed.

Our analysis shows that while the Expeditionary Concept does not reduce the Air Force's ability to deploy forces to a single major war, the Air Force's ability to continue rotations to contingency operations during a major war would be seriously disrupted. The Air Force would have to rely on crisis action planning to pool sufficient assets from across the 10 Aerospace Expeditionary Force groups to meet some ongoing contingency requirements and determine which other contingency requirements could not be fully met. Our analysis also indicates that the Aerospace Expeditionary Force rotation structure would have to be rebuilt through a significant reconstitution of forces used not only in the major war but also ongoing contingencies. This would mean that forces needed to rebuild rotations under the Concept would not be immediately available after the end of a major war and that the Air Force's crisis action planning would continue to provide forces to ongoing contingencies.

Recommendation

To enable the Air Force to better understand the effects of its Expeditionary Aerospace Force Concept and make any needed adjustments, we recommend that the Secretary of Defense direct the Secretary of the Air Force to develop specific quantifiable goals based on the Concept's broad objectives, and establish needed metrics to measure progress toward these goals. These measurable goals should directly relate to the Expeditionary Concept's overall objectives. Examples of specific aspects concerning the Expeditionary Concept that the Air Force should consider measuring include the amount of advance notice servicemembers receive before deploying to ongoing contingencies and the length and frequency of deployments for specific units and servicemembers. In particular, the Air Force should monitor factors critical to reserve participation in the Expeditionary Aerospace Force Concept, including the level of volunteerism achieved and the extent to which the reserves can

meet theater commanders' requirements for certain high-demand capabilities, such as aircraft that can deliver precision-guided munitions.

Matter for Congressional Consideration

In light of the high level of congressional interest in the application of the Expeditionary Concept to Air Force operations, the Congress may wish to require the Secretary of Defense to direct the Secretary of the Air Force to establish specific, quantifiable goals and performance measures based on the Concept's broad objectives, and to use this management framework to provide the Congress with annual updates on the Concept's status and results.

Agency Comments and Our Response

In written comments, the Department of Defense partially agreed with our report recommendation to develop specific, quantifiable goals based on the Concept's broad objectives, and establish needed metrics to measure progress toward those goals. The Department of Defense noted that the Expeditionary Concept was a "work in progress" and that our review occurred early in its implementation, thus limiting our ability to fully assess its impact. The Department of Defense also emphasized the significance of the Expeditionary Concept in its comments, noting that it represented the largest transformation in fundamental Air Force processes since before the Cold War. Measuring the Concept's true effectiveness will be difficult, according to the Department, because there are many influential factors that can affect its success. Nonetheless, the Department of Defense agreed with us that a systematic, quantifiable approach to determining Expeditionary Concept efficacy was critical. However, the Department of Defense disagreed with our assessment that the Air Force does not have adequate metrics to ensure progress toward the Expeditionary Aerospace Force Concept's goals. The Department of Defense believes that existing Air Force systems and metrics are sufficient for determining implementation effectiveness, albeit with refinements based upon real experience with the Expeditionary Concept.

We agree with the Department of Defense's assessment that the Expeditionary Concept represents a significant departure from the past. This is why we believed it was important for us to report to congressional oversight committees how the Air Force plans to implement this Concept, and to develop methodologies for testing the Concept's potential benefits. For example, our deployment analysis was based on existing AEF force alignments, not on actual deployments. We did not attempt to assess the

Concept's results this early in its implementation, but believe the Air Force will need to do so soon. This is why our recommendation focuses on what the Air Force will need to do to get ready for such assessments.

We also agree that the Air Force currently maintains a number of systems that could provide useful information related to the Expeditionary Concept. For example, the Air Force currently measures retention and frequency of unit deployments. We are also encouraged by the Air Force's willingness to refine these systems as needed to assist in its analysis of the Expeditionary Concept. However, these measurement tools will only be useful in assessing the Expeditionary Concept's management and results if they are applied to specific, measurable results-oriented goals that are linked to the Concept's current broad objectives. As our report notes, such goals have not been established. For example, our report notes that deployment predictability is a principle objective of the Expeditionary Concept, yet no specific, quantifiable goals have been set to measure the degree of change in this area. In addition, information collected needs to be measured against baseline data established prior to the Expeditionary Concept and according to specific goals established to implement the Concept's broad objectives. Such an approach would allow Air Force leadership to better assess, for example, whether retention problems experienced in the active force are improving or are being shifted to reservists that are subject to increased overseas deployments under the Expeditionary Concept. The Department of Defense pointed out that there are many varying conditions that might impact the success of the Expeditionary Concept, such as contingency number and size, and the Air Force's force size. However, these variables have long existed and do not constitute a reason not to pursue a focused performance measurement approach.

Because we do not believe the steps currently taken by the Air Force will be sufficient for measuring Expeditionary Concept results, we included a matter for congressional consideration that would require the Air Force to establish specific, quantifiable goals and performance measures based on the Concept's broad objectives, and to use this management framework to provide the Congress with annual updates on the Concept's status and results.

Comments from the Department of Defense are reprinted in appendix II. The Department also provided technical comments that we incorporated as appropriate.

We are sending copies of this report to the Honorable William S. Cohen, Secretary of Defense, and the Honorable F. Whitten Peters, Secretary of the Air Force. We will also make copies available to others upon request.

Please contact me at (202) 512-5140 if you or your staff have any questions concerning this report. Major contributors to this report were Gwendolyn R. Jaffe, Fred Harrison, Brenda Waterfield, and Dawn Godfrey.

Carol R Schuster

Carol R. Schuster
Associate Director
National Security Preparedness Issues

List of Congressional Committees

The Honorable Tim Hutchinson
Chairman

The Honorable Max Cleland
Ranking Member
Subcommittee on Personnel
Committee on Armed Services
United States Senate

The Honorable James M. Inhofe
Chairman
Subcommittee on Readiness and Management Support
Committee on Armed Services
United States Senate

The Honorable Steve Buyer
Chairman
Subcommittee on Military Personnel
Committee on Armed Services
House of Representatives

Scope and Methodology

To assess the extent to which the Expeditionary Aerospace Force Concept will spread the burden of deployments over a larger part of the Air Force's combat forces, we compared historical deployments to five contingencies for fiscal years 1998 and 1999 to projected deployments to the same contingencies for fiscal years 2000 and 2001. We used the Air Force's definition of the five contingencies—Northern Watch, Southern Watch, Keflavik, Bosnia, and counter-drug operations. We performed this comparison for combat aircraft in all three Air Force components—active, Air Guard, and Air Reserve. We did not examine the relief the concept might provide to combat support forces. For the active forces, we calculated the days for the projected contingency deployments based on each squadron's Aerospace Expeditionary Force (AEF) alignment and deployment on-call period (90 days). For the Air Guard and Air Reserve, we calculated the days for the projected contingency deployments based on each squadron's AEF alignment and the number of days the reserve components committed to deploy (usually 30 days per squadron). For mobility aircraft, we calculated the projected number of days deployed based on each unit's AEF alignment for fiscal years 2000 and 2001. For the active component, we calculated 90 days deployed per squadron for the C-130 units and 45 days deployed per squadron for the KC-135 units. For the Air Guard and Air Reserve, we calculated 14 days deployed per squadron for both aircraft types. Using this data, we determined the proportion each component is projected to deploy to the five contingencies under the Expeditionary Concept. We discussed our methodology and results with officials at: Air Combat Command and the AEF Center at Langley Air Force Base in Hampton, Virginia; Air Mobility Command at Scott Air Force Base in Illinois; and Air Force Headquarters at the Pentagon. All the officials agreed our methodology was appropriate.

We obtained the historical deployment data from an Air Force contractor, DFI International. DFI developed and has maintained its deployment database since 1995 and has used the database in many analyses including DOD's Quadrennial Defense Review. We discussed our use of the historical deployment data with officials at Air Combat Command, the AEF Center, Air Force Headquarters, and DFI International and all agreed we used the data appropriately and it was accurately summarized in our analysis. We did not test DFI's or the Air Force's management controls over its automated system.

To assess what challenges the reserves face in meeting their expected role under the Concept, we discussed the reserves' role with officials in the Operations Directorate at the Air Force Reserve Command at Warner

Robins Air Force Base in Macon, Georgia, and the Air National Guard Plans and Operations Directorates in the Washington, D.C., area. Our discussions included obtaining an understanding of how the reserves' support to contingency operations will change as a result of EAF implementation, identifying benefits that reserve officials expect will result from EAF implementation, and identifying challenges officials said they expect to overcome.

Additionally, we obtained data from the Reserve components on their units' AEF alignment and commitments to ongoing contingency operations and discussed the factors they took into account in deciding which reservists could fill theater commander requirements.

To assess whether the Air Force could continue rotating forces to ongoing contingency operations, as planned under the Concept, while simultaneously engaging in a single major war, we examined Air Force documents stating the Concept's purpose and discussed how the Concept was being implemented with officials in the Air Force Headquarters EAF Implementation Office. Given that the Air Force would not use the EAF Concept, in the near term, to manage force deployments to the two major war scenario, we assessed the effect one major war would have on the EAF Concept.¹ From the most recently approved plans, U.S. Joint Forces Command provided a list of Air Force combat forces that are planned to deploy to each of two single, independent major wars. We identified the residual forces (i.e., the forces that would not deploy in a one-war scenario) by comparing the forces planned to deploy to the forces aligned in the 10 AEFs and 2 on-call wings. Next, we compared the residual forces with the requirements for the five ongoing contingency operations to determine whether residual forces were: (1) adequate in numbers and mix to meet contingency requirements and (2) sufficient to sustain rotations as planned under the Concept.

We compared the U.S. Joint Forces Command combat squadron AEF alignments with the alignments according to the Air Combat Command. Since we found a high degree of correlation, we were satisfied that the U.S. Joint Forces Command data was sound. We did not test the Command's management controls over its automated system. Also, U.S. Joint Forces

¹This question is not relevant for the two nearly simultaneous major wars because all Air Force combat squadrons would deploy to the two wars and, therefore, combat forces would have to be withdrawn from contingencies.

Appendix I
Scope and Methodology

Command and Air Combat Command officials agreed that our summary of the requirements for the five contingency operations was accurate. Finally, we briefed officials at U.S. Joint Forces Command, Air Combat Command, the AEF Center, and Air Force Headquarters on our analysis methodology and results. At each office, the officials agreed our methodology was logical and our data sources were reliable.

We conducted our review from June 1999 through June 2000 in accordance with generally accepted government auditing standards.

Comments From the Department of Defense



PERSONNEL AND
READINESS

THE OFFICE OF THE UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, DC 20301-4000

10 AUG 2000



Ms. Carol R. Schuster
Associate Director
National Security Preparedness Issues
National Security and International Affairs Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Ms. Schuster:

This is the Department of Defense (DoD) response the GAO draft report, "FORCE STRUCTURE: Expeditionary Air Force Concept Offers Benefits But Effects Should Be Assessed," dated July 14, 2000 (GAO Code 702002/OSD Case 2048). We appreciate the opportunity to review the draft report, and partially concur with its findings subject to the issues discussed below and in our technical comments which were provided separately.

We are concerned that the timing of this audit required GAO to evaluate a "work in progress." Several of the evaluation tools GAO said were lacking were actually in the process of being refined and/or adapted to the Expeditionary Aerospace Force (EAF) environment based on existing Air Force evaluation systems. In this vein, the GAO began its audit in May 1999, five months prior to implementation and execution of the EAF concept, thus complicating its ability to gather sufficient data to fully assess the impact of EAF on Air Force operations. EAF is an ongoing process, representing the largest transformation in fundamental Air Force processes since before the Cold War. Further, EAF is only one of many "tools" being used by senior leadership to address the challenges of the post-Cold War era and 21st Century operations. It may also be difficult to measure the true effectiveness of the EAF concept in isolation due to several influential factors:

- Number, size and scope of future peacetime steady-state contingencies,
- Number, size and scope of future crises or conflicts to which the Air Force may have to respond,
- Size of the force,
- Size of the budget,
- State of the economy and its impact on retention and recruitment, and
- Size and scope of maintaining excess infrastructure while maintaining current installation structures.

The Air Force implemented the EAF concept using the force structure existing at the time of execution, which showed the cumulative effects of limited Defense resources, force drawdowns, and increased deployment commitments on readiness. Further, that force structure was built around the two major theater war (2 MTW) strategy and the assumption that adequate resources were



Appendix II
Comments From the Department of Defense

available to support contingencies at the lower end of the spectrum of conflict. Unfortunately, persistent and varied peacetime contingency operations may adversely affect the Air Force's ability to meet the 2 MTW requirements. Aligning force structure to meet the requirements outlined in the National Security Strategy is an evolutionary process, which is being spearheaded through the Air Force's vision document, *Global Vigilance, Reach & Power*, and the upcoming Quadrennial Defense Review. The Air Force's Total Force Assessment will also use EAF to determine force structure requirements across the full spectrum of military operations.

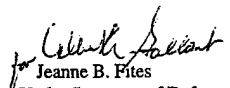
The Air Force involvement in the Kosovo campaign, the largest air campaign since the Gulf War (38,000 sorties in 78 days), also hampered EAF implementation planning. For the first time ever, the Air Force had to reconstitute its forces from the combination of deployments involved with Kosovo and other contingencies. This reconstitution period lasted from June 1999 through March 2000 and impacted the use of many scheduled Aerospace Expeditionary Force (AEF) units. As a result, the Air Force has not completed an entire AEF cycle (10 AEFs), thus limiting its ability to assess the total impact as compared with the pre-EAF environment. The first cycle will not be complete until December 2000.

The EAF concept was developed primarily to address the challenges of numerous peacetime steady-state contingency deployments in order to retain the ability to train and sustain the force to fulfill MTW commitments. Therefore, the EAF concept has focused on increasing predictability and stability for Air Force personnel required to meet the large number of peacetime deployments. Clearly, the force will have to "surge" to meet crises or MTWs, but prior to EAF, the Air Force had to surge the force just to meet peacetime tasks. This, in turn, created morale, readiness, and sustainment problems for Air Force units and personnel called upon to meet the 2 MTW strategy. EAF inserts structure and predictability that will ensure units have time to train adequately to meet their wartime tasks.

Detailed comments in response to the recommendation are provided in the enclosure. Technical comments for clarification and accuracy have been provided separately.

The OSD primary action officer for this audit is Lieutenant Colonel Sid Evans, USAF, who is located in the Requirements Directorate, Office of the Deputy Under Secretary of Defense (Program Integration), 703-614-5133.

Sincerely,


Jeanne B. Fites
Deputy Under Secretary of Defense
(Program Integration)

Enclosure
As stated

GENERAL ACCOUNTING OFFICE DRAFT REPORT DATED JULY 14, 2000
(GAO CODE 702002/OSD CASE 2048)

"FORCE STRUCTURE: EXPEDITIONARY AIR FORCE CONCEPT OFFERS
BENEFITS BUT EFFECTS SHOULD BE ASSESSED"

DOD COMMENTS ON THE GAO RECOMMENDATION

RECOMMENDATION: To enable the Air Force to better understand the effects of its Expeditionary Air Force Concept and make any needed adjustments, the GAO recommended that the Secretary of Defense direct the Secretary of the Air Force to develop specific quantifiable goals based on the concept's broad objectives and establish needed metrics to measure progress toward these goals. The GAO asserted that the measurable goals should directly relate to the Expeditionary Concept's overall objectives. Examples of specific aspects concerning the Expeditionary Concept that the GAO asserted the Air Force should consider measuring include the amount of advance notice service members receive before deploying to ongoing contingencies and the length and frequency of deployments for specific units and service members. In particular, the GAO asserted the Air Force should monitor factors critical to reserve participation in the Expeditionary Air Force Concept including the level of volunteerism achieved and the extent to which the reserves can meet regional commanders' requirements for certain high-demand capabilities, such as aircraft that can deliver precision guided munitions. (pp. 24-25/GAO Draft Report)

DOD RESPONSE: Partially Concur. We are concerned that the GAO recommendation characterizes the Air Force as not having adequate metrics to ensure progress toward the Expeditionary Aerospace Force (EAF) concept's goals. GAO's assessment concludes by saying "the Air Force has not sufficiently established quantifiable goals or a systematic approach for collecting data to measure the concept's results. Without these management tools, the Air Force will not be able to systematically assess the extent to which the Expeditionary Concept is achieving its objectives or obtain the information it needs to make future adjustments to realize the concept's full potential."

We agree with GAO's view that a systematic, quantifiable approach to determine EAF efficacy is critical. However we also believe the Air Force is quite accurate in its assessment that existing operational and personnel tempo metrics pointed to the need for the EAF concept and are useful in determining implementation effectiveness. It should also be noted that the Air Force acknowledges the need for continued refinement of these metrics based upon real experience with EAF implementation. Toward that end, we believe the page 12 heading that the "Air Force Lacks Systematic Assessment of Expeditionary Concept Results" is unnecessarily harsh. Instead, we believe this heading

Now on pp. 26-27.

Appendix II
Comments From the Department of Defense

should be recast to say "Air Force Continues to Evolve Existing Quantitative Assessment Tools to Capture Expeditionary Concept Results."

The Air Force has long used metrics to track and measure the success of its functional programs. These metrics led the Air Force to develop the EAF concept to alleviate specific and persistent problems. Now the Air Force is refining the metrics it will use to track and measure progress of the EAF concept, thus yielding the information the GAO described. In addition, we believe the background of the report should include specific explanations of the rationale for the EAF concept, and the context, especially the timing relative to EAF implementation, under which the audit was conducted.

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